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**REMARKS**

Claims 1, 2, 4, 5, 8-12, and 27-41 were pending in the application. Claims 1, 2, 4, 5, 8, 9, 11, 27-38, 40 and 41 have been amended. For the Examiner's convenience all of the claims, as they will be pending after the amendments presented herein have been entered, are set forth in Appendix A.

*No new matter has been added.* Support for the amendments to the claims can be found throughout the specification as filed. Any amendments to and/or cancellation of the claims should in no way be construed as an acquiescence to any of the Examiner's rejections and was done solely to expedite the prosecution of the application. Applicants reserve the right to pursue the claims as originally filed in this or a separate application(s).

***Acknowledgement of the Examiner's Withdrawal of Previous Rejections and the Indication of Certain Claims as Allowed***

Applicants gratefully acknowledge the Examiner's withdrawal of the previous rejection of claims 1-2, 4-5, 8-12 and 29-41 under 35 U.S.C. §112, first paragraph "for new matter" and the Examiner's indication of claim 41 as allowed.

***Objection of the Disclosure***

The Examiner has objected to the specification because the ATCC accession numbers are missing from the specification.

Applicants respectfully submit that, in view of the amendments to the specification presented herein, the foregoing rejection has been rendered moot. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the foregoing objection.

***Rejection of Claims 4, 8-12, 34-35 and 39 Under 35 U.S.C. § 112, First Paragraph***

The Examiner has rejected claims 4, 8-12, 34-35 and 39 under 35 U.S.C. § 112, first paragraph because, according to the Examiner, "the specification, *while being enabling for the*

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*recited nucleic acids which encode protein and whose full complement hybridizes under the recited conditions to the recited SEQ IDs*, does not reasonably provide enablement for the recited nucleic acids which encode protein and hybridize under the recited conditions to the recited SEQ ID.” (*Emphasis added*). In particular, the Examiner is of the opinion that

[t]he specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. SEQ ID NOs: 1, 3-4, 6-7 and 9 all are the coding sequences for the Nip2 homologues. A single nucleic acid molecule cannot both hybridize to the coding strand and encode protein unless it is a palindrome; Applicants have not enabled such molecules. It is suggested that the claims be amended to state that it is the full complement of the nucleic acid which encodes the NIP2 homologs that hybridizes to the coding nucleic acids.

While in no way conceding the validity of the Examiner’s rejection and solely in the interest of expediting prosecution, Applicants have amended the claims thereby rendering the foregoing rejection moot. Specifically, Applicants have amended the claims to recite that the claimed nucleic acid molecule hybridizes to the *full complement* of the recited SEQ ID NO, as suggested by the Examiner. In view of the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw the foregoing rejection.

***Rejection of Claims 1, 2, 5, 9, 27, 37-38, and 40 Under 35 U.S.C. §102***

The Examiner has rejected claims 1, 2, 5, 9, 27, 37-38, and 40 under 35 U.S.C. §102(b) as being anticipated by Adams *et al.* The Examiner relies on this reference for teaching “an EST T08680, which is 437 bases in length and shows 100% identity in nucleotides 1-269 to nucleotides 845-1113 of SEQ ID NO: 3; furthermore, these nucleotides encode aa 283-371 of SEQ ID NO:2.” In particular, the Examiner is of the opinion that

[t]his sequence is deemed anticipatory for the claimed subject matter because the complement of the DNA of reference is 100% identical to instant SEQ ID NO:1, and 3. Please note that the instant claims make no limitation on the size of the

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*complement; amendment to recite "full complement", e.g., would overcome this rejection for claims -2, 5, 9, and 27. Amendment to recite, e.g., 60% identical to the full length of SEQ ID NO:2 would overcome this rejection for claim 37. (Emphasis added).*

While in no way conceding the validity of the Examiner's rejection and solely in the interest of expediting prosecution, Applicants have amended the claims thereby rendering the foregoing rejection moot. Specifically, Applicants have amended claims 1, 2, 5, 27-33, 36-38, 40 and 41 to recite "**full complement**" and claims 5 and 37 to recite "**% identical to the full length**" of the recited SEQ ID NO, as suggested by the Examiner. In view of the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw the foregoing rejection.

The Examiner has also rejected claims 9, 28, 29, 32, 33, 37-38 and 40 under 35 U.S.C. §102(b) as being anticipated by Genbank accession no AA5044063. The Examiner is of the opinion that

*the reference is an EST, which is 275 bases in length and shows 100% identity in nucleotides 3-302 to nucleotides 48-298 of SEQ ID NO: 6; furthermore, these nucleotides encode aa 17-99 of SEQ ID NO:5. This sequence is deemed anticipatory for the claimed subject matter because the complement of the DNA of reference is 100% identical to instant SEQ ID NO:4, and 6. Please note that the instant claims make no limitation on the size of the complement; amendment to recite "full complement", e.g., would overcome this rejection for claims , 9, 28, 29, and 32 -33. Amendment to recite, e.g., 60% identical to the full length of SEQ ID NO:5 would overcome this rejection for claim 37. (Emphasis added).*

While in no way conceding the validity of the Examiner's rejection and solely in the interest of expediting prosecution, Applicants have amended the claims thereby rendering the foregoing rejection moot. Specifically, Applicants have amended claims 1, 2, 5, 27-33, 36-38, 40 and 41 to recite "**full complement**" and claims 5 and 37 to recite "**% identical to the full length**" of the recited SEQ ID NO, as suggested by the Examiner. In view of the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw the foregoing rejection.

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Claims 9, 30, 31, 33, 37-38 and 40 have also been rejected by the Examiner under 35 U.S.C. §102(b) as being anticipated by Fujihara *et al.* The Examiner relies on this reference for teaching "an EST D61567, which is 302 bases in length and shows 100% identity in nucleotides 3-302 to nucleotides 1-272 of SEQ ID NO: 9; furthermore, these nucleotides encode aa 1-90 of SEQ ID NO:8." In particular, the Examiner is of the opinion that

[t]his sequence is deemed anticipatory for the claimed subject matter because the complement of the DNA of reference is 100% identical to instant SEQ ID NO:7, and 9. Please note that the instant claims make no limitation on the size of the complement; *amendment to recite "full complement", e.g., would overcome this rejection for claims 9, 30, 31, and 33. Amendment to recite, e.g., 60% identical to the full length of SEQ ID NO:8 would overcome this rejection for claim 37. (Emphasis added).*

While in no way conceding the validity of the Examiner's rejection and solely in the interest of expediting prosecution, Applicants have amended the claims thereby rendering the foregoing rejection moot. Specifically, Applicants have amended claims 1, 2, 5, 27-33, 36-38, 40 and 41 to recite "*full complement*" and claims 5 and 37 to recite "*% identical to the full length*" of the recited SEQ ID NO, as suggested by the Examiner. In view of the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw the foregoing rejection.

Finally, the Examiner has rejected claims 1, 5, 8-12, 36, and 39 under 35 U.S.C. §102(e) as being anticipated by RYAN *et al.* The Examiner is of the opinion that

[n]ucleotides 25149-25630 of SEQ ID NO:6 share 81% similarity with nucleotides 2605-3076 of instant SEQ ID NO:1. This sequence is deemed anticipatory for the claimed subject matter of claim 5 because it comprises a nucleic acid whose complement is at least 59% identical to SEQ ID NO: 1. Likewise, the complement of portions of nucleotides 25149-25630 of SEQ ID NO:6 of the reference are 100% identical to instant SEQ ID NO: 1. Please note that the instant claims make no

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limitation on the size of the complement; *amendment to recite "full complement", e.g., would overcome this rejection. (Emphasis added).*

While in no way conceding the validity of the Examiner's rejection and solely in the interest of expediting prosecution, Applicants have amended the claims thereby rendering the foregoing rejection moot. Specifically, Applicants have amended claims 1, 2, 5, 27-33, 36-38, 40 and 41 to recite "*full complement*" and claims 5 and 37 to recite "*% identical to the full length*" of the recited SEQ ID NO, as suggested by the Examiner. In view of the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw the foregoing rejection.

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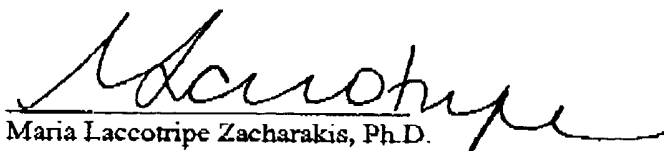
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**CONCLUSION**

On the basis of the foregoing amendments and remarks, Applicants respectfully submit that the pending claims are in condition for allowance. If a telephone conversation with Applicants' Attorney would expedite prosecution of the above-identified application, the Examiner is urged to call the undersigned at (617) 227-7400.

Respectfully submitted,



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Limited Recognition Under 37 C.F.R. §10.9(b)

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